

=> file reg

FILE 'REGISTRY' ENTERED AT 17:56:19 ON 08 MAR 2006
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=> display history full 11-

FILE 'REGISTRY' ENTERED AT 16:59:27 ON 08 MAR 2006

 E CELLULOSE/CN

L1 1 SEA CELLULOSE/CN
 E STARCH/CN
L2 1 SEA STARCH/CN

FILE 'HCA' ENTERED AT 17:04:05 ON 08 MAR 2006

L3 828873 SEA L1 OR L2 OR CELLULOS? OR CELLULOLY? OR STARCH? OR
 ?SACCHARID? OR ?CARBOHYDRAT?

L4 QUE HALIDE# OR BROMIDE# OR CHLORIDE# OR IODIDE# OR
 HYPOHALITE# OR HYPOCHLORITE# OR HYPOBROMITE# OR HYPOIODIT
 E#

FILE 'REGISTRY' ENTERED AT 17:04:24 ON 08 MAR 2006

 E PEROXIDASE/CN

L5 1 SEA PEROXIDASE/CN
 E LACTOPEROXIDASE/CN
L6 1 SEA LACTOPEROXIDASE/CN
 E MYELOPEROXIDASE/CN
L7 1 SEA MYELOPEROXIDASE/CN
 E HALOPEROXIDASE/CN
L8 1 SEA HALOPEROXIDASE/CN
L9 2 SEA (L5 OR L6 OR L7 OR L8)

FILE 'HCA' ENTERED AT 17:08:15 ON 08 MAR 2006

L10 91168 SEA L9 OR ?PEROXIDAS?
L11 6285 SEA (NITROXYL# OR NITROSONIUM# OR TEMPO OR PROXYL OR
 DOXYL OR N(W)OXIDE#) AND RADICAL?

FILE 'LREGISTRY' ENTERED AT 17:09:18 ON 08 MAR 2006

 E NITROSYL

L12 1 SEA NITROSYLBENZENE/BI

FILE 'HCA' ENTERED AT 17:10:40 ON 08 MAR 2006

L13 4565 SEA (NITROSYL? OR NITROSO?) AND RADICAL?

FILE 'LREGISTRY' ENTERED AT 17:10:51 ON 08 MAR 2006

L14 STR

E NITROXYL

L15 9 SEA NITROXYL/BI

FILE 'HCA' ENTERED AT 17:14:10 ON 08 MAR 2006

L16 5833 SEA NITROXIDE# AND RADICAL?

FILE 'REGISTRY' ENTERED AT 17:16:38 ON 08 MAR 2006

L17 50 SEA SSS SAM L14
L18 STR L14
L19 50 SEA SSS SAM L18
L20 33723 SEA SSS FUL L18
SAV TEM L20 HUG069/A
L21 53800 SEA RADICAL?
L22 152 SEA L20 AND L21
L23 34 SEA C12H24N3O2
L24 1 SEA L22 AND L23

FILE 'HCA' ENTERED AT 17:28:55 ON 08 MAR 2006

L25 6754 SEA L22
L26 8669 SEA L20 AND RADICAL?
L27 481 SEA L3 AND L4 AND L10
L28 1 SEA L27 AND L11
L29 1 SEA L27 AND L13
L30 2 SEA L27 AND L16
L31 5 SEA L27 AND L25
L32 2 SEA L27 AND L26
L33 28913 SEA L20
L34 10 SEA L27 AND L33
L35 8 SEA (L28 OR L29 OR L30 OR L31 OR L32)
L36 19 SEA L3 AND L10 AND (L11 OR L13 OR L16 OR L25 OR L26)

FILE 'LCA' ENTERED AT 17:44:23 ON 08 MAR 2006

L37 5328 SEA ?HALOGEN? OR ?HALID? OR ?FLUORID? OR ?CHLORID? OR
?BROMID? OR ?IODID? OR ?HYPOHALID? OR ?HYPOFLUORID? OR
?HYPOCHLORID? OR ?HYPOBROMID? OR ?HYPOIODID?

FILE 'HCA' ENTERED AT 17:46:56 ON 08 MAR 2006

L38 4 SEA L36 AND L37

FILE 'REGISTRY' ENTERED AT 17:47:30 ON 08 MAR 2006

L39 1329 SEA A1/PG (L) X/ELS (L) 2/ELC.SUB
L40 432 SEA HYPOCHLORITE# OR HYPOBROMITE# OR HYPOIODITE#

FILE 'HCA' ENTERED AT 17:53:28 ON 08 MAR 2006

L41 281662 SEA L39 OR L40
L42 3 SEA L36 AND L41

FILE 'REGISTRY' ENTERED AT 17:53:53 ON 08 MAR 2006

L43 8635 SEA M/ELS (L) X/ELS (L) 2/ELC.SUB

FILE 'HCA' ENTERED AT 17:54:08 ON 08 MAR 2006

L44 588028 SEA L43

L45 2 SEA L36 AND L44

L46 8 SEA L35 OR L38 OR L42 OR L45

L47 6 SEA L34 AND L46

L48 8 SEA L46 OR L47

L49 4 SEA L34 NOT L48

FILE 'REGISTRY' ENTERED AT 17:56:19 ON 08 MAR 2006

=> d 120 que stat

L18 STR

E0

O 4

{

C-*N-*C

1 2 3

NODE ATTRIBUTES:

HCOUNT IS E0 AT 4

NSPEC IS RC AT 1

NSPEC IS RC AT 3

CONNECT IS E1 RC AT 4

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE

L20 33723 SEA FILE=REGISTRY SSS FUL L18

100.0% PROCESSED 218591 ITERATIONS

33723 ANSWERS

SEARCH TIME: 00.00.01

=> file hca

FILE 'HCA' ENTERED AT 17:56:45 ON 08 MAR 2006

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=> d 148 1-8 cbib abs hitstr hitind

L48 ANSWER 1 OF 8 HCA COPYRIGHT 2006 ACS on STN

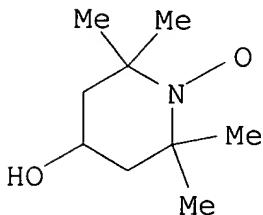
141:381254 Crystalline **polysaccharide** derivatives, their production and their applications. Vignon, Michel; Montanari, Suzelei; Habibi, Youssef (Centre National de la Recherche Scientifique CNRS, Fr.). Fr. Demande FR 2854161 A1 20041029, 68 pp. (French). CODEN: FRXXBL. APPLICATION: FR 2003-5195 20030428.

AB The invention relates to cryst. **polysaccharide** derivs. in which at least part of the CH₂OH groups are oxidized to CO₂H groups, whereby the latter are able to be partly or entirely in the form of salts or functionalized. These derivs. are characterized in that they are present in the form of aggregates comprising microcrystals and/or individualized microfibrils, with the lateral sizes of the microcrystals and microfibrils being on the order of 1-30 nm and their length up to .apprx.100 .mu.m, whereby the the microcrystals and microfibrils form aggregates in water. The products may be used as viscosifiers, stabilizers, superabsorbents, or chelators. In an example, cotton linters were oxidized with NaOCl in the presence of TEMPO and NaBr. Other examples deal with **starch** and chitin.

IT 2226-96-2, 4-Hydroxy-TEMPO 2564-83-2, TEMPO
 6599-87-7, 4-Acetoxy-TEMPO 7647-15-6, Sodium bromide, uses 9003-99-0, Peroxidase
 14691-88-4, 4-Amino-TEMPO 14691-89-5,
 4-Acetamido-TEMPO 15178-63-9, 4-Maleimido-TEMPO
 22690-04-6, 4-(Phosphonooxy)-TEMPO 31645-22-4,
 4-(Benzylxy)-TEMPO
 (in prodn. of microcryst. and microfibrillar oxidized **polysaccharide** derivs.)

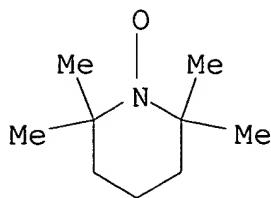
RN 2226-96-2 HCA

CN 1-Piperidinyloxy, 4-hydroxy-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

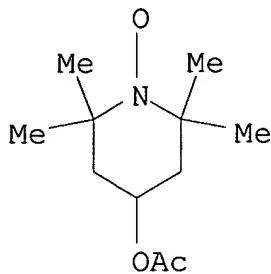


RN 2564-83-2 HCA

CN 1-Piperidinyloxy, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



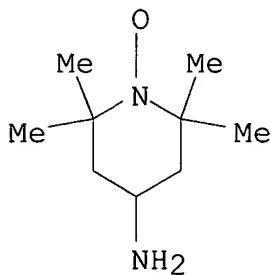
RN 6599-87-7 HCA
 CN 1-Piperidinyloxy, 4-(acetyloxy)-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



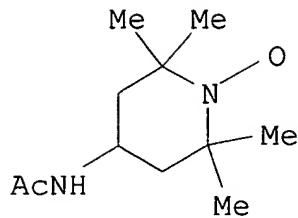
RN 7647-15-6 HCA
 CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br—Na

RN 9003-99-0 HCA
 CN Peroxidase (9CI) (CA INDEX NAME)
 *** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 RN 14691-88-4 HCA
 CN 1-Piperidinyloxy, 4-amino-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)

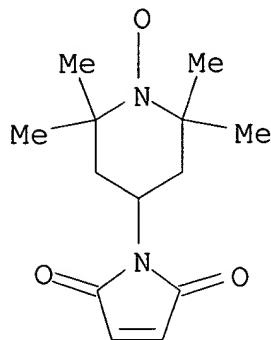


RN 14691-89-5 HCA
 CN 1-Piperidinyloxy, 4-(acetylamino)-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



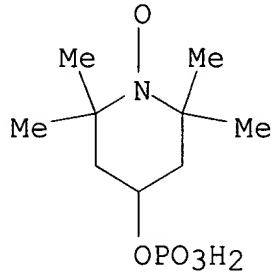
RN 15178-63-9 HCA

CN 1-Piperidinyloxy, 4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



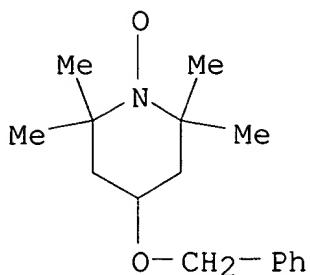
RN 22690-04-6 HCA

CN 1-Piperidinyloxy, 2,2,6,6-tetramethyl-4-(phosphonoxy)- (9CI) (CA INDEX NAME)



RN 31645-22-4 HCA

CN 1-Piperidinyloxy, 2,2,6,6-tetramethyl-4-(phenylmethoxy)- (9CI) (CA INDEX NAME)



IT 7681-52-9, Sodium **hypochlorite**
 (in prodn. of microcryst. and microfibrillar oxidized
polysaccharide derivs.)

RN 7681-52-9 HCA

CN Hypochlorous acid, sodium salt (8CI, 9CI) (CA INDEX NAME)

Cl-OH

● Na

IT 9004-34-6DP, **Cellulose**, oxidized
 9005-25-8DP, **Starch**, oxidized
 (prodn. of microcryst. and microfibrillar oxidized
polysaccharide derivs.)

RN 9004-34-6 HCA

CN Cellulose (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9005-25-8 HCA

CN Starch (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C08B015-00

CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)

Section cross-reference(s): 44

ST **polysaccharide** oxidn microcryst microfiber product;
cellulose starch chitin oxidn microcryst

microfiber product

IT Rayon, preparation

(oxidized; in prodn. of microcryst. and microfibrillar oxidized
polysaccharide derivs.)

IT Linters

(prodn. of cryst. oxidized **polysaccharide** derivs. from)

IT Microcrystallites

Microfibers

(prodn. of microcryst. and microfibrillar oxidized

polysaccharide derivs.)

IT Beta vulgaris saccharifera
(pulp; in prodn. of microcryst. and microfibrillar oxidized polysaccharide derivs.)

IT 2226-96-2, 4-Hydroxy-TEMPO 2564-83-2, TEMPO
6599-87-7, 4-Acetoxy-TEMPO 7647-15-6, Sodium bromide, uses 9001-62-1, Lipase 9002-10-2, Polyphenol oxidase 9003-99-0, Peroxidase 14691-88-4
, 4-Amino-TEMPO 14691-89-5, 4-Acetamido-TEMPO
15178-63-9, 4-Maleimido-TEMPO 22690-04-6,
4-(Phosphonooxy)-TEMPO 31645-22-4, 4-(Benzylxy)-TEMPO
80498-15-3, Laccase
(in prodn. of microcryst. and microfibrillar oxidized polysaccharide derivs.)

IT 100-46-9DP, Benzylamine, reaction products with oxidized cellulose 109-85-3DP, 2-Methoxyethylamine, reaction products with oxidized cellulose 110-60-1DP,
1,4-Diaminobutane, reaction products with oxidized cellulose 9037-22-3DP, Waxilys, oxidized 25189-55-3DP, Poly(N-isopropylacrylamide), reaction products with oxidized cellulose 111144-84-4DP, reaction products with oxidized cellulose 783344-73-0DP, reaction products with oxidized cellulose
(in prodn. of microcryst. and microfibrillar oxidized polysaccharide derivs.)

IT 67-56-1, Methanol, uses 1892-57-5, EDAC
(in prodn. of microcryst. and microfibrillar oxidized polysaccharide derivs.)

IT 7681-52-9, Sodium hypochlorite 10028-15-6,
Ozone, reactions
(in prodn. of microcryst. and microfibrillar oxidized polysaccharide derivs.)

IT 1398-61-4DP, Chitin, oxidized 9000-07-1DP, Carrageenan, oxidized 9004-34-6DP, Cellulose, oxidized 9005-25-8DP, Starch, oxidized 9005-80-5DP,
Inulin, oxidized 9005-82-7DP, Amylose, oxidized 9012-36-6DP,
Agarose, oxidized 9012-72-0DP, Glucan, oxidized 9014-63-5DP,
Xylan, oxidized 9036-88-8DP, Mannan, oxidized 31799-84-5DP,
Nigeran, oxidized
(prodn. of microcryst. and microfibrillar oxidized polysaccharide derivs.)

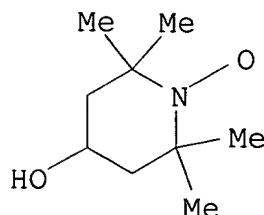
L48 ANSWER 2 OF 8 HCA COPYRIGHT 2006 ACS on STN
139:391295 Do stable nitroxide radicals catalyze or
inhibit the degradation of hyaluronic acid?. Lurie, Ziva; Offer,
Tal; Russo, Angelo; Samuni, Amram; Nitzan, Dorrit (Department of
Molecular Biology, Hebrew University-Hadassah Medical School,
Jerusalem, Israel). Free Radical Biology & Medicine, 35(2), 169-178

(English) 2003. CODEN: FRBMEH. ISSN: 0891-5849. Publisher: Elsevier Science Inc..

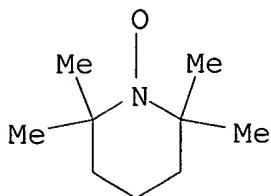
AB Reactive oxygen-derived species and particularly OH **radicals** can degrade hyaluronic acid (HA), resulting in a loss of viscosity and a subsequent decrease in its effectiveness as a joint-lubricating agent. The prodn. of OH in the vicinity of HA can be catalyzed by bound redox-active metals, which participate in the Haber-Weiss reaction. Damage to HA can also occur as a result of **hypochlorite** formed by **myeloperoxidase** (MPO). The protective reagents commonly used to inhibit oxidative stress-induced degrdn. of HA include antioxidative enzymes, such as SOD and catalase, chelators that coordinate metal ions rendering them redox-inactive, and scavengers of **radicals**, such as OH, as well as nonradical reactive species. In recent years, stable cyclic **nitroxides** have also been widely used as effective antioxidants. In many cases, **nitroxide** antioxidants operate catalytically and mediate their protective effect through an exchange between their oxidized and reduced forms. It was anticipated, therefore, that **nitroxides** would protect HA from oxidative degrdn. as well. On the other hand, **nitroxides** serve as catalysts in many oxidn. reactions of alcs., sugars and **polysaccharides**, including hyaluronan. Such opposite effects of **nitroxides** on oxidative degrdn. are particularly intriguing and the aim of the present study was to examine their effect on HA when subjected to diverse forms of oxidative stress. The results indicate that **nitroxides** protect HA from OH **radicals** generated enzymically or radiolytically. The protective effect is attributable neither to the scavenging of OH nor to the oxidn. of reduced metal, but to the reaction of **nitroxides** with secondary **carbohydrate radicals**-most likely peroxy **radicals**.

IT 2226-96-2, 4-Hydroxy-2,2,6,6-tetramethyl piperidine-1-oxyl
 2564-83-2, 2,2,6,6-Tetra-methyl piperidine-1-oxyl
 14691-88-4, 4-Amino-2,2,6,6-tetra-methyl piperidine-1-oxyl
 (stable **nitroxide radicals** effect on degrdn. of hyaluronic acid)

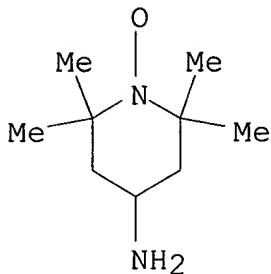
RN 2226-96-2 HCA
 CN 1-Piperidinyloxy, 4-hydroxy-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



RN 2564-83-2 HCA
 CN 1-Piperidinyloxy, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



RN 14691-88-4 HCA
 CN 1-Piperidinyloxy, 4-amino-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



CC 1-12 (Pharmacology)
 Section cross-reference(s): 8, 14
 ST **nitroxide** antioxidant superoxide SOD mimetic ionizing
 radiation hyaluronate viscosity; antiinflammatory rheumatoid
 arthritis **nitroxide** hyaluronate oxidative stress free
 radical
 IT Anti-inflammatory agents
 Antioxidants
 Antirheumatic agents
 Gamma ray
 Rheumatoid arthritis
 Viscosity
 (stable **nitroxide radicals** effect on degrdn.
 of hyaluronic acid)
 IT **Radicals**, biological studies
 (stable **nitroxide radicals** effect on degrdn.
 of hyaluronic acid)
 IT **Nitroxides**
 (stable **nitroxide radicals** effect on degrdn.
 of hyaluronic acid)
 IT 9054-89-1
 (copper-zinc-contg.; stable **nitroxide radicals**

IT effect on degrdn. of hyaluronic acid)
 3352-57-6, Hydroxyl, biological studies 7722-84-1, Hydrogen peroxide, biological studies 11062-77-4, Superoxide 14337-01-0, biological studies
 (stable **nitroxide radicals** effect on degrdn. of hyaluronic acid)
 IT 9004-61-9, Hyaluronic acid
 (stable **nitroxide radicals** effect on degrdn. of hyaluronic acid)
 IT 68-94-0, Hypoxanthine 69-65-8, Mannitol 70-51-9, Desferrioxamine 2226-96-2, 4-Hydroxy-2,2,6,6-tetramethyl piperidine-1-oxyl 2564-83-2, 2,2,6,6-Tetra-methyl piperidine-1-oxyl 9001-05-2, Catalase 9002-17-9 **14691-88-4**, 4-Amino-2,2,6,6-tetra-methyl piperidine-1-oxyl
 (stable **nitroxide radicals** effect on degrdn. of hyaluronic acid)

L48 ANSWER 3 OF 8 HCA COPYRIGHT 2006 ACS on STN.

138:155270 Process for the selective modification of **carbohydrates** by **peroxidase** catalyzed oxidation.

Cui, Xiaoyuan; Cimecioglu, A. Levent; Shi, Yong-Cheng (USA). U.S. Pat. Appl. Publ. US 2003029588 A1 20030213, 7 pp. (English).

CODEN: USXXCO. APPLICATION: US 2001-851069 20010508.

AB The present invention relates to an environmentally friendly process for the selective oxidn. of **carbohydrates**. The process comprises the addn. of a hydroperoxide, including hydrogen peroxide, to a **carbohydrate** having primary alc. groups, particularly including **polysaccharides**, wherein said **carbohydrate** is contact with a **nitroxyl radical** mediator and the process is catalyzed by a **peroxidase** enzyme in the presence of **halide** ions. Thus, 50 g Amioca **starch** was added to 200 mL water in which 0.5 g 4-acetamido-**TEMPO**, 0.5 g NaBr and 20 mg **lactoperoxidase** (4.times.600 units, L-8257) were dissolved. The mixt. was incubated at room temp. at an initial pH of 5.3, and 0.5% H₂O₂ was slowly added (30 .mu.L/min). The pH of the reaction was initially increased from 5.3 to 6.5 and maintained at 6.5 by the slow addn. of NaOH (0.1 N). After 20 h, 0.56 mL of 0.1 N NaOH was consumed. The **starch** slurry was then filtered and **starch** cake was reslurried in water 4 times (200 mL each) until no detectable H₂O₂ remained in the filtrate, and then air-dried. The oxidized Amioca **starch** showed an aldehyde content 0.34%.

IT **7647-15-6**, Sodium **bromide**, reactions
 (halide ion source; process for selective modification of **carbohydrates** by **peroxidase** catalyzed oxidn. in the presence of **nitroxyl radical**)

RN 7647-15-6 HCA

CN Sodium bromide (NaBr) (9CI) (CA INDEX NAME)

Br—Na

IT 9003-99-0, **Lactoperoxidase 14691-89-5**,

4-Acetamido-**TEMPO**

(process for selective modification of **carbohydrates** by **peroxidase** catalyzed oxidn. in the presence of **nitroxyl radical**)

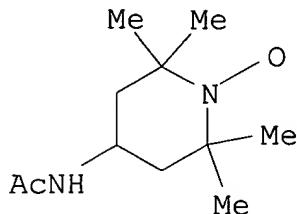
RN 9003-99-0 HCA

CN Peroxidase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 14691-89-5 HCA

CN 1-Piperidinyloxy, 4-(acetylamino)-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM D21C009-00

ICS D21C003-20; D06M023-00; D06M013-322

INCL 162072000; 162009000; 162157600; 162109000; 008120000; 008181000; 008116100

CC 44-6 (Industrial Carbohydrates)

Section cross-reference(s): 7, 33, 43

ST **lactoperoxidase nitroxyl radical oxidn**

polysaccharide carbohydrate aldehyde manuf

IT Enzymes, uses

(**peroxidases**; process for selective modification of **carbohydrates** by **peroxidase** catalyzed oxidn. in the presence of **nitroxyl radical**)

IT **Cellulose** pulp

(process for selective modification of **carbohydrates** by **peroxidase** catalyzed oxidn. in the presence of **nitroxyl radical**)

IT 7647-15-6, Sodium **bromide**, reactions

(**halide** ion source; process for selective modification of **carbohydrates** by **peroxidase** catalyzed oxidn. in the presence of **nitroxyl radical**)

IT 7722-84-1, Hydrogen peroxide, reactions

(oxidant; process for selective modification of

carbohydrates by **peroxidase** catalyzed oxidn. in
the presence of **nitroxyl radical**)

IT 3149-68-6DP, Methyl glucoside, oxidized product 9037-22-3DP,
Amioca, oxidized products
(process for selective modification of **carbohydrates** by
peroxidase catalyzed oxidn. in the presence of
nitroxyl radical)

IT 9003-99-0, Lactoperoxidase 9031-28-1, Thyroid
peroxidase 14691-89-5, 4-Acetamido-**TEMPO**
(process for selective modification of **carbohydrates** by
peroxidase catalyzed oxidn. in the presence of
nitroxyl radical)

IT 3149-68-6, Methyl glucoside 9037-22-3, Amioca
(process for selective modification of **carbohydrates** by
peroxidase catalyzed oxidn. in the presence of
nitroxyl radical)

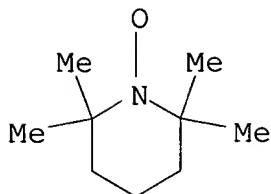
L48 ANSWER 4 OF 8 HCA COPYRIGHT 2006 ACS on STN

138:124179 Extraction of **polysaccharides** from vegetable and
microbial material using oxidizing agents. Van Der Wilden, Wim;
Haaksman, Ingrid Karin; Ekhart, Peter Frank; Jetten, Jan Matthijs
(Nederlandse Organisatie Voor Toegepast-Natuurwetenschappelijk
Onderzoek Tno, Neth.). PCT Int. Appl. WO 2003008458 A1 20030130, 15
pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG,
BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES,
FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO,
NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF,
CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC,
ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2.
APPLICATION: WO 2002-NL482 20020717. PRIORITY: NL 2001-1018568
20010717.

AB Useful **polysaccharides**, such as .beta.-1,3-glucans, from a
biol. raw material can be solubilized and/or isolated by treating
the raw material with an oxidizing agent that leads to oxidn. of
primary hydroxyl groups in the glucan. The oxidizing agent is
preferably a catalytic amt. of a nitroxyl compd. in the presence of
a re-oxidizing agent such as **hypochlorite** or an oxidative
enzyme with oxygen or hydrogen peroxide. The **polysaccharide**
retains its useful properties during this treatment and is,
moreover, more readily available. If desired, protein material from
the raw material can also be utilized.

IT 2564-83-2, **TEMPO**
(extn. of **polysaccharides** from vegetable and microbial
material using oxidizing agents)

RN 2564-83-2 HCA
CN 1-Piperidinyloxy, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IT 9003-99-0, Peroxidase

(oxidizing agent; extn. of **polysaccharides** from vegetable and microbial material using oxidizing agents)

RN 9003-99-0 HCA

CN Peroxidase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC C08B037-00; C07H003-06

CC 44-5 (Industrial Carbohydrates)

ST **polysaccharide** extn oxidizing agent

IT Binders

Emulsifying agents

Oxidation

Oxidizing agents

Wetting agents

(extn. of **polysaccharides** from vegetable and microbial material using oxidizing agents)

IT Yeast

(flakes; extn. of **polysaccharides** from vegetable and microbial material using oxidizing agents)

IT **Polysaccharides**, preparation

(oxidized; extn. of **polysaccharides** from vegetable and microbial material using oxidizing agents)

IT Beta vulgaris saccharifera

(pulp; extn. of **polysaccharides** from vegetable and microbial material using oxidizing agents)

IT Cereal (grain)

(residues; extn. of **polysaccharides** from vegetable and microbial material using oxidizing agents)

IT 2564-83-2, TEMPO 7790-92-3, Hypochlorous acid

(extn. of **polysaccharides** from vegetable and microbial material using oxidizing agents)

IT 9002-10-2, Polyphenol oxidase 9003-99-0,

Peroxidase 80498-15-3, Laccase

(oxidizing agent; extn. of **polysaccharides** from vegetable and microbial material using oxidizing agents)

Hsu, Fong Fu; Zenser, Terry V. (Division of Geriatric Medicine, VA Medical Center, St. Louis, MO, 63125, USA). Chemical Research in Toxicology, 15(8), 1059-1068 (English) 2002. CODEN: CRTOEC. ISSN: 0893-228X. Publisher: American Chemical Society.

AB Both cooked red meat intake and chronic inflammation/infection are thought to play a role in the etiol. of colon cancer. The heterocyclic amine 2-amino-3-methylimidazo[4,5-f]quinoline (IQ) is formed during cooking of red meat and may be involved in initiation of colon cancer. Reactive nitrogen oxygen species (RNOS), components of the inflammatory response, contribute to the deleterious effects attributed to inflammation on normal tissues. This study assessed the possible chem. transformation of IQ by RNOS. RNOS were generated by various conditions to react with C-IQ, and samples were evaluated by HPLC. **Myeloperoxidase** (MPO)-catalyzed reaction was dependent upon both H₂O₂ and NO₂⁻. This reaction produced an azo-IQ dimer and IQ dimer along with two nitrated IQ products identified by ESI/MS. 2-Nitro-IQ was not detected. Product formation was inhibited by 2 mM cyanide. Redn. in nitrated products obsd. with 100 mM **chloride** was not altered with 0.5 mM taurine. Nitrated products were also produced by other conditions, ONOO⁻ and NO₂⁻ + HOCl, which generate nitrogen dioxide **radical**. In contrast, conditions which generate N₂O₃, such as diethylamine NONOate, produced only small amts. of nitrated products with the major product identified by MS and NMR as **N-nitroso-IQ**. MPO activation of IQ to bind DNA was dependent upon both H₂O₂ and NO₂⁻. RNOS generated by ONOO⁻ and DEA NONOate also activated IQ DNA binding. The nitrated IQ products were not activated by MPO to bind DNA. In contrast, N-**nitroso-IQ** was activated to bind DNA by MPO .+- . NO₂⁻. HOCl activated N-**nitroso-IQ**, but not IQ. RAW cells produced N-**nitroso-IQ** and increased amts. of NO₂⁻/NO₃⁻, when incubated with 0.1 mM IQ and stimulated with **lipopolysaccharide** and interferon gamma. Results demonstrate chem. transformation and activation of IQ by RNOS and activation of its **N-nitroso** product by biol. oxidants, events which may contribute to initiation of colon cancer.

IT **9003-99-0, Myeloperoxidase**

(nitrosation and nitration of IQ by reactive nitrogen oxygen species)

RN 9003-99-0 HCA

CN Peroxidase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CC 4-6 (Toxicology)

Section cross-reference(s): 17

IT **9003-99-0, Myeloperoxidase** 76180-96-6,
2-Amino-3-methylimidazo[4,5-f]quinoline 146724-94-9, Diethylamine
NONOate

(nitrosation and nitration of IQ by reactive nitrogen oxygen

species)

L48 ANSWER 6 OF 8 HCA COPYRIGHT 2006 ACS on STN

133:209532 Oxidized **cellulose**-containing fibrous materials, preparation thereof and products therefrom. Jaschinski, Thomas; Gunnars, Susanna; Besemer, Arie Cornelis; Bragd, Petter; Jetten, Jan Matthijs; Van den Dool, Ronald; Van Hartingsveldt, Willem (Sca Hygiene Products G.m.b.H., Germany; Sca Hygiene Products Zeist B.V.). PCT Int. Appl. WO 2000050462 A1 20000831, 75 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-EP1538 20000224. PRIORITY: EP 1999-200537 19990224; DE 1999-19953590 19991108.

AB A **cellulose**-contg. fibrous material is prep'd. by oxidizing hydroxy groups at the C(6) of glucose units of **cellulose** into aldehyde and/or carboxy groups, and used to prep. paper or nonwoven products, esp. tissue products. The paper or nonwoven products display excellent strength properties. Thus, bleached hardwood sulfite pulp was treated for 60 min under acidic conditions with 4-hydroxy-TEMPO (1.00 g/50 g dry fibrous material) using 5% of 13% NaOCl as a primary oxidizing agent, and used to prep. test sheets (basis wt. 80 g/m²) having wt. 2.56 g, breaking strength 23.94 (dry) and 4.687 N/15 mm (wet), tear length 1980.1 (dry) and 387.7 m (wet), and rel. wet strength 19.6%, compared with 3.04, 18.48, 0.151, 1285.7, 10.5, and 0.8, resp., for a nonoxidized pulp.

IT **9004-34-6DP, Cellulose**, oxidized, preparation
(contg. aldehyde and/or carboxyl groups; oxidized
cellulose-contg. fibrous materials, prep'n. thereof and
products therefrom)

RN 9004-34-6 HCA

CN Cellulose (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **2226-96-2**, 4-Hydroxy-TEMPO **2564-83-2**, TEMPO

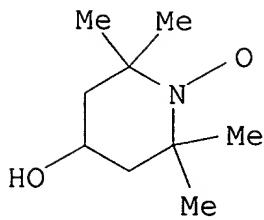
9003-99-0, Peroxidase **14691-88-4**,

4-Amino-TEMPO **14691-89-5**, 4-Acetamido-TEMPO

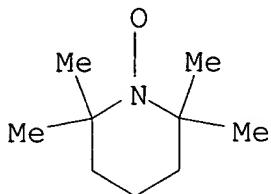
(oxidized **cellulose**-contg. fibrous materials, prep'n.
thereof and products therefrom)

RN 2226-96-2 HCA

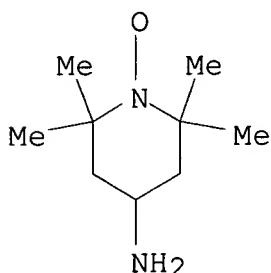
CN 1-Piperidinyloxy, 4-hydroxy-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



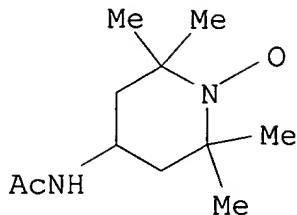
RN 2564-83-2 HCA
 CN 1-Piperidinyloxy, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



RN 9003-99-0 HCA
 CN Peroxidase (9CI) (CA INDEX NAME)
 *** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 RN 14691-88-4 HCA
 CN 1-Piperidinyloxy, 4-amino-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



RN 14691-89-5 HCA
 CN 1-Piperidinyloxy, 4-(acetylamino)-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IT 7681-52-9, Sodium **hypochlorite**
(oxidized **cellulose**-contg. fibrous materials, prepns.
thereof and products therefrom)
RN 7681-52-9 HCA
CN Hypochlorous acid, sodium salt (8CI, 9CI) (CA INDEX NAME)

Cl-OH

• Na

IC ICM C08B015-02
IC S ICS C08B015-04; D21H011-20
CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
ST cellulose oxidn aldehydocellulose carboxycellulose paper
strength; sodium **hypochlorite** TEMPO oxidn
cellulose; piperidinyloxy sodium **hypochlorite**
oxidn **cellulose**
IT Household furnishings
(bedding; oxidized **cellulose**-contg. fibrous materials,
prepn. thereof and products therefrom)
IT **Cellulose** pulp
(kraft; oxidized **cellulose**-contg. fibrous materials,
prepn. thereof and products therefrom)
IT Oxidizing agents
(metal-contg.; oxidized **cellulose**-contg. fibrous
materials, prepn. thereof and products therefrom)
IT Clothing
Nonwoven fabrics
(oxidized **cellulose**-contg. fibrous materials, prepn.
thereof and products therefrom)
IT **Hypohalites**
Peroxy acids
(oxidized **cellulose**-contg. fibrous materials, prepn.
thereof and products therefrom)
IT **Cellulose** pulp

(sulfite; oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)

IT Paper
(tissue, facial; oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)

IT Paper
(tissue; oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)

IT Paper
(towels; oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)

IT Medical goods
(wipes; oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)

IT Household furnishings
(wiping cloths; oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)

IT **9004-34-6DP, Cellulose**, oxidized, preparation
(contg. aldehyde and/or carboxyl groups; oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)

IT 39301-50-3P, 6-Aldehydocellulose
(oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)

IT **2226-96-2**, 4-Hydroxy-TEMPO **2564-83-2**, TEMPO
9003-99-0, Peroxidase **14691-88-4**,
4-Amino-TEMPO **14691-89-5**, 4-Acetamido-TEMPO
(oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)

IT **7681-52-9**, Sodium **hypochlorite** 10028-15-6,
Ozone, reactions
(oxidized **cellulose**-contg. fibrous materials, prepn. thereof and products therefrom)

L48 ANSWER 7 OF 8 HCA COPYRIGHT 2006 ACS on STN

130:326478 Method for modification of **cellulose**. Viikari, Liisa; Kruus, Kristiina; Buchert, Johanna (Valtion Teknillinen Tutkimuskeskus, Finland). PCT Int. Appl. WO 9923117 A1 19990514, 16 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1998-FI861 19981104. PRIORITY: FI 1997-4139 19971104.

AB The method comprises bringing a **cellulose**-contg. material

(pine kraft pulp) into contact with a reactant (e.g., 2,2,6,6-tetramethylpiperidine-1-oxyl) producing an oxoammonium ion in the presence of an oxidizing agent (e.g., laccase). The invention provides selective oxidn., which gives rise to the formation of carboxylic and carbonyl groups at desired ratios in the **cellulose**. By using laccase it is possible to avoid the environmentally harmful **halide**-contg. materials commonly used as oxidants.

IT **9003-99-0, Peroxidase**

(method for modification of **cellulose**)

RN 9003-99-0 HCA

CN Peroxidase (9CI) (CA INDEX NAME)

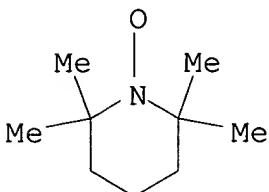
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **2564-83-2, TEMPO**

(method for modification of **cellulose**)

RN 2564-83-2 HCA

CN 1-Piperidinyloxy, 2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IC ICM C08B015-04

ICS C12S003-00; D21C009-10

CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)

IT **Cellulose** pulp

(kraft; method for modification of **cellulose**)

IT Oxidizing agents

(method for modification of **cellulose**)

IT **Cellulose** pulp

(oxidized; method for modification of **cellulose**)

IT Enzymes, uses

(oxidizing, oxidizing agents; method for modification of **cellulose**)

IT **9003-99-0, Peroxidase** 80498-15-3, Laccase

(method for modification of **cellulose**)

IT **2564-83-2, TEMPO** 7722-84-1, Hydrogen peroxide, uses

(method for modification of **cellulose**)

L48 ANSWER 8 OF 8 HCA COPYRIGHT 2006 ACS on STN

119:173983 Oxidation of desferrioxamine to **nitroxide** free

radical by activated human neutrophils. Soriani, Marco;

Mazzuca, Silvia; Quaresima, Valentina; Minetti, Maurizio (Lab. Biol. Cell., Ist. Super. Sanita, Rome, 00161, Italy). Free Radical

Cell., Ist. Super. Sanita, Rome, 00161, Italy). Free Radical

Biology & Medicine, 14(6), 589-99 (English) 1993. CODEN: FRBMEH.
ISSN: 0891-5849.

AB Human neutrophils activated by PMA were found to induce the formation of a **nitroxide radical** from DFO. The presence of SOD was necessary to permit the formation of the DFO **radical**. The inactive phorbol ester did not induce DFO **radical**, and DL-sphinganine suppressed the **radical** produced by the active phorbol ester. Other cell stimuli (Zymocel and the chemotactic peptide) also induced the formation of the DFO **radical**, although **radical** concn. was very much lower than with PMA. Participation of .bul.NO, .bul.OH or 102 was ruled out by the inability of NG-methyl-L-arginine, NG-nitro-L-arginine, DMSO, mannitol, histidine, and methionine to inhibit the formation of DFO **radical** produced by PMA-activated cells. Furthermore, PMA-activated cells did not produce detectable levels of NO₂⁻, a stable oxidn. product of .bul.NO, and D2O, which enhances the lifetime of singlet oxygen, did not modify the intensity or the lifetime of DFO **radical**. The involvement of cell MPO was suggested by the inhibition of the DFO **radical** obstd. after treatment with catalase or with antihuman MPO antibodies. Also, HOCl was found to induce the DFO **radical** in cell-free reactions, but this data indicate that the reaction leading to DFO **radical** formation by neutrophils involves the redn. of MPO compd. II back to the active enzyme (ferric-MPO). Anti-inflammatory drugs strongly increased the DFO **radical** produced by activated neutrophils. On the contrary, none of these drugs was able to increase the DFO **radical** produced by HOCl. Histidine and methionine that inhibited the DFO **radical** intensity in cell-free reactions, were shown to act directly on HOCl. Expts. with MPO-H2O₂ in SOD- and Cl--free conditions showed the formation of DFO **radical** and confirmed the hypothesis of the involvement of compd. II. The conversion of compd. II to ferric MPO by DFO optimized the enzymic activity of neutrophils, and in the presence of monochlorodimedon (compd. II promoting agent) the authors measured an increased HOCl prodn. When DFO was modified by conjugation with hydroxyethyl **starch**, it lost the ability to produce the **radical** either by neutrophils or by MPO-H2O₂ and did not increase HOCl prodn. The inability of these DFO derivs. to produce potentially toxic species might explain their reported lower toxicity in vivo.

IT 9003-99-0P, **Myeloperoxidase**

(role in formation of **nitroxide** free **radical**,
in desferrioxamine oxidn., by human neutrophils)

RN 9003-99-0 HCA

CN Peroxidase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CC 1-10 (Pharmacology)

ST desferrioxamine oxidn **nitroxide free radical**
 neutrophil

IT Antioxidants
 (desferrioxamine as, **nitroxide free radical**
 formation by oxidn. of, in neutrophils)

IT Neutrophil
 (desferrioxamine oxidn. by, **nitroxide free radical** formation in, antioxidant activity in relation to)

IT **Hypochlorites**
 (desferrioxamine oxidn. to **nitroxide radical**
 by, in human neutrophils, toxicity in relation to)

IT Chelating agents
 (desferrioxamine, **nitroxide radical** formation
 by oxidn. of, in human neutrophils)

IT Reactive oxygen species
 (role in formation of **nitroxide free radical**,
 in desferrioxamine oxidn., by human neutrophils)

IT Inflammation inhibitors
 (stimulation of **nitroxide radical** formation
 in desferrioxamine oxidn. by, in human neutrophils)

IT 123145-71-1, Desferrioxamine **nitroxide radical**
 (formation of, by desferrioxamine oxidn., by human neutrophils,
 antioxidant activity in relation to)

IT 70-51-9, Desferrioxamine
 (oxidn. of, **nitroxide radical** formation in,
 by human neutrophils, antioxidant activity in relation to)

IT **9003-99-0P, Myeloperoxidase**
 (role in formation of **nitroxide free radical**,
 in desferrioxamine oxidn., by human neutrophils)

=> d 149 1-4 cbib abs hitstr hitind

L49 ANSWER 1 OF 4 HCA COPYRIGHT 2006 ACS on STN

142:444358 Fluorinated resorufin compounds and their application.

Batchelor, Robert; Ge, Yue; Gee, Kyle; Johnson, Iain; Leung, Wai-Yee; Liu, Jixiang; Patch, Brian; Smalley, Peter; Steinberg, Thomas (USA). U.S. Pat. Appl. Publ. US 2005096315 A1 20050505, 62 pp. (English). CODEN: USXXCO. APPLICATION: US 2004-980139 20041101. PRIORITY: US 2003-2003/PV516244 20031031.

AB The invention provides novel fluorinated resorufin compds. that are of use in a variety of assay formats. Also provided are methods of using the compds. and kits that include a compd. of the invention and instructions detailing the use of the compd. in one or more assay formats. 2,8-Difluoro-10-acetyl-3,7-dihydroxyphenoxazine (I) was prep'd. from 4-fluororesorcinol and isoamyl nitrate in four steps. I was used in enzyme assays for cyclooxygenase 2, Hb, and

glycerol, and in an ELISA for C-reactive protein.

IT 9004-34-6, **Cellulose**, biological studies
 9004-34-6D, **Cellulose**, diazo derivs.
 9005-25-8, **Starch**, biological studies
 (as solid support linked to fluorinated resorufin compds.;
 fluorinated resorufin compds. and their use in assays)

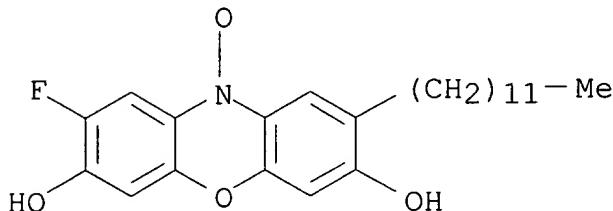
RN 9004-34-6 HCA
 CN Cellulose (8CI, 9CI) (CA INDEX NAME)
 *** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9004-34-6 HCA
 CN Cellulose (8CI, 9CI) (CA INDEX NAME)
 *** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9005-25-8 HCA
 CN Starch (8CI, 9CI) (CA INDEX NAME)
 *** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **851128-88-6P**
 (fluorinated resorufin compds. and their use in assays)

RN 851128-88-6 HCA
 CN 10H-Phenoxazin-10-ylxy, 2-dodecyl-8-fluoro-3,7-dihydroxy- (9CI)
 (CA INDEX NAME)



IT **9003-99-0, Peroxidase**
 (fluorogenic compd. reaction with peroxide in presence of;
 fluorinated resorufin compds. and their use in assays)

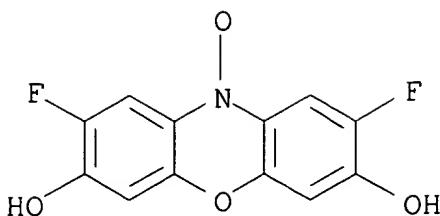
RN 9003-99-0 HCA
 CN Peroxidase (9CI) (CA INDEX NAME)
 *** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **9003-99-0D, Peroxidase**, conjugates with carrier
 (fluorogenic compd. reaction with peroxide in presence of;
 fluorinated resorufin compds. and their use in assays)

RN 9003-99-0 HCA
 CN Peroxidase (9CI) (CA INDEX NAME)
 *** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **851128-96-6P**
 (use in detg. cytotoxicity of test compds.; fluorinated resorufin
 compds. and their use in assays)

RN 851128-96-6 HCA
 CN 10H-Phenoxazin-10-ylxy, 2,8-difluoro-3,7-dihydroxy- (9CI) (CA
 INDEX NAME)



IC ICM A61K031-5415
 ICS A61K031-538; A61K031-498
 INCL 514224800; 514229800; 514250000; 544046000; 544102000; 544347000
 CC 9-5 (Biochemical Methods)
 Section cross-reference(s): 7, 15, 28, 41
 IT **Lipopolysaccharides**
 (Escherichia coli, COX-2 activity induced by, detection of;
 fluorinated resorufin compds. and their use in assays)
 IT Antibodies and Immunoglobulins
 (IgA, antibody to, conjugates with **peroxidase**;
 fluorinated resorufin compds. and their use in assays)
 IT Antibodies and Immunoglobulins
 (IgE, antibody to, conjugates with **peroxidase**;
 fluorinated resorufin compds. and their use in assays)
 IT Antibodies and Immunoglobulins
 (IgG, antibody to, conjugates with **peroxidase**;
 fluorinated resorufin compds. and their use in assays)
 IT Agglutinins and Lectins
 Amino acids, biological studies
 Antibodies and Immunoglobulins
 Avidins
 Growth factors, animal
 Haptens
 Hormones, animal, biological studies
 Lipids, biological studies
Lipopolysaccharides
 Nucleic acids
 Nucleosides, biological studies
 Nucleotides, biological studies
 Oligonucleotides
 Peptides, biological studies
 Polymers, biological studies
Polysaccharides, biological studies
 Proteins
 (as carrier mol. linked to fluorinated resorufin compds.;
 fluorinated resorufin compds. and their use in assays)
 IT Antibodies and Immunoglobulins
 (conjugates, with horseradish **peroxidase**; fluorinated
 resorufin compds. and their use in assays)
 IT Alkyl **halides**

Aryl halides

(fluorinated resorufin compds. contg. reactive; fluorinated resorufin compds. and their use in assays)

IT Functional groups

(silyl, **halides**, fluorinated resorufin compds. contg. reactive; fluorinated resorufin compds. and their use in assays)

IT Functional groups

(sulfonyl group, **halides**, fluorinated resorufin compds. contg. reactive; fluorinated resorufin compds. and their use in assays)

IT 9002-18-0, Agar 9002-86-2, Polyvinyl **chloride**

9002-88-4, Polyethylene 9003-01-4 9003-05-8, Poly(acrylamide)

9003-07-0, Polypropylene 9003-53-6, Polystyrene **9004-34-6**, **Cellulose**, biological studies **9004-34-6D**,**Cellulose**, diazo derivs. 9004-70-0, Nitrocellulose**9005-25-8**, **Starch**, biological studies 9005-49-6,

Heparin, biological studies 9005-79-2, Glycogen, biological studies 9005-80-5, Inulin 9012-36-6, Sepharose 9036-88-8,

Mannan 9037-22-3, Amylopectin 25702-74-3, FICOLL

(as solid support linked to fluorinated resorufin compds.; fluorinated resorufin compds. and their use in assays)

IT 56-65-5, 5'-ATP, analysis 506-32-1, Arachidonic acid 7647-14-5,

Sodium **chloride**, analysis 16009-13-5, Hemin

(fluorinated resorufin compds. and their use in assays)

IT 851128-75-1P 851128-78-4P 851128-81-9P 851128-84-2P

851128-86-4P **851128-88-6P** 851128-94-4P

(fluorinated resorufin compds. and their use in assays)

IT **9003-99-0, Peroxidase**

(fluorogenic compd. reaction with peroxide in presence of; fluorinated resorufin compds. and their use in assays)

IT **9003-99-0D, Peroxidase**, conjugates with carrier

39391-18-9, Cyclooxygenase

(fluorogenic compd. reaction with peroxide in presence of; fluorinated resorufin compds. and their use in assays)

IT 7722-84-1, Hydrogen peroxide, analysis

(fluorogenic compd. reaction with, in presence of **peroxidase**; fluorinated resorufin compds. and their use in assays)

IT 14915-07-2, Peroxide

(fluorogenic compd. reaction with, in presence of **peroxidase**; fluorinated resorufin compds. and their use in assays)

IT **851128-96-6P**

(use in detg. cytotoxicity of test compds.; fluorinated resorufin compds. and their use in assays)

monoheteroyldiaryl methane direct dye or its leuco precursor.
 Guerin, Frederic; Lagrange, Alain (L'oreal, Fr.). Fr. Demande FR 2849373 A1 20040702, 74 pp. (French). CODEN: FRXXBL. APPLICATION: FR 2002-16851 20021230.

AB Hair dyeing compns. comprise a direct monoheteroyldiaryl methane dye and its leuco precursors. Thus, a formulation contained N-[4-[[4-(diethylamino)phenyl](4-oxo-4H-1-benzopyran-3-yl)methylene]-2,5-cyclohexadien-1-ylidene]-N-ethylethanaminium perchlorate 0.553, oleic diethanolamide 3, lauric acid 1, ethylene glycol monoethyl ether 5, hydroxyethyl **cellulose** 2, 2-amino-2-methyl-1-propanol 9.5, and water qs to 100 g. **chloride** 0.56, benzyl alc. 4.0, PEG 6.0, hydroxyethyl **cellulose** 0.7, alkyl polyglucoside 4.5, phosphate buffer 7, and water qs to 100 g.

IT **9003-99-0, Peroxidase 81769-84-8**
81769-89-3 81769-90-6 81790-04-7

(hair dyeing compns. contg. monoheteroyldiaryl methane direct dye or its leuco precursor)

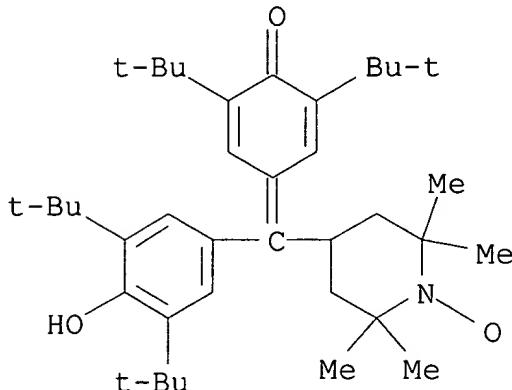
RN 9003-99-0 HCA

CN Peroxidase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

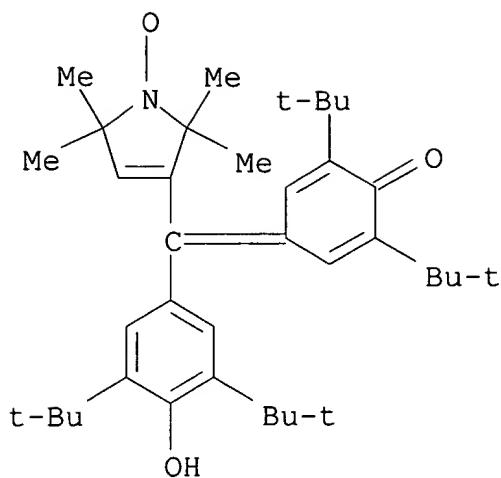
RN 81769-84-8 HCA

CN 1-Piperidinyloxy, 4-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl][3,5-bis(1,1-dimethylethyl)-4-oxo-2,5-cyclohexadien-1-ylidene]methyl]-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



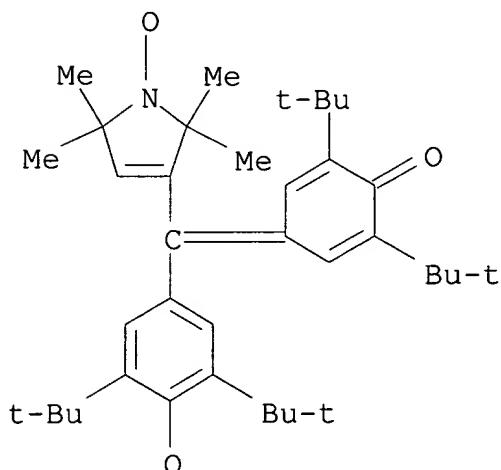
RN 81769-89-3 HCA

CN 1H-Pyrrol-1-yl-4-hydroxyphenyl[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl][3,5-bis(1,1-dimethylethyl)-4-oxo-2,5-cyclohexadien-1-ylidene]methyl]-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



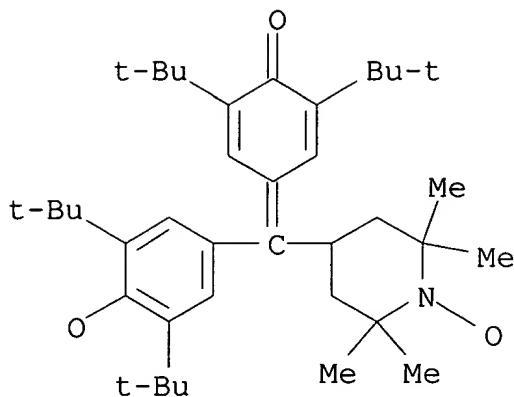
RN 81769-90-6 HCA

CN 1H-Pyrrol-1-ylmethoxy, 3-[[3,5-bis(1,1-dimethylethyl)-4-oxo-2,5-cyclohexadien-1-ylidene][3,5-bis(1,1-dimethylethyl)-4-oxyphenyl]methyl]-2,5-dihydro-2,2,5,5-tetramethyl- (9CI) (CA INDEX NAME)



RN 81790-04-7 HCA

CN 1-Piperidinyloxy, 4-[[3,5-bis(1,1-dimethylethyl)-4-oxo-2,5-cyclohexadien-1-ylidene][3,5-bis(1,1-dimethylethyl)-4-oxyphenyl]methyl]-2,2,6,6-tetramethyl- (9CI) (CA INDEX NAME)



IC	ICM	A61K007-13			
CC	62-3	(Essential Oils and Cosmetics)			
IT	95-55-6D, o-Aminophenol, derivs.	95-70-5, p-Toluenediamine			
	106-50-3, p-Phenylenediamine, biological studies	106-50-3D,			
	p-Phenylenediamine, derivs.	108-45-2D, m-Phenylenediamine, derivs.			
	108-46-3D, Resorcinol, derivs.	123-30-8, p-Aminophenol			
	123-30-8D, p-Aminophenol, derivs.	124-43-6 591-27-5D,			
	m-Aminophenol, derivs.	2835-95-2, 5-Amino-2-methylphenol			
	3486-48-4 3737-88-0	3737-89-1 3737-91-5 3810-38-6			
	6411-50-3 6735-60-0	6837-66-7 7722-84-1, Hydrogen peroxide,			
	biological studies	9003-99-0, Peroxidase			
	9035-73-8, Oxidase	9037-29-0, Oxygenase	10231-59-1	13158-70-8	
	13158-71-9	13158-72-0	13158-73-1	15081-86-4	15082-04-9
	17329-99-6	17330-00-6	17330-03-9	17330-04-0	18198-28-2
	18198-29-3	18198-30-6	18198-31-7	22179-00-6	22179-01-7
	22196-95-8	23266-29-7	23266-30-0	23266-31-1	23266-32-2
	23266-33-3	23266-34-4	23266-35-5	23266-36-6	23297-28-1
	23335-34-4	23642-27-5	25361-34-6	26345-38-0	32982-64-2
	33609-83-5	34762-92-0	36525-76-5	37111-44-7	38213-80-8
	38557-41-4	38557-42-5	38557-43-6	38557-44-7	38557-45-8
	40683-08-7	40683-09-8	40683-10-1	40683-11-2	40683-12-3
	40739-75-1	41573-35-7	42297-76-7	42297-77-8	42297-78-9
	42297-79-0	42297-80-3	42297-81-4	42297-82-5	42297-83-6
	42443-53-8	47334-92-9	47334-93-0	47334-95-2	47433-65-8
	47433-66-9	47569-88-0	47571-92-6	47615-09-8	47645-26-1
	47646-24-2	47699-20-7	47699-21-8	47700-01-6	47701-02-0
	47725-05-3	47742-10-9	47742-82-5	47789-57-1	47791-05-9
	47816-91-1	48230-04-2	48237-01-0	49716-03-2	50548-08-8
	50584-48-0	50904-51-3	50904-52-4	50904-53-5	50904-54-6
	51107-46-1	51107-47-2	54111-86-3	54117-49-6	54117-50-9
	54117-51-0	54117-52-1	54117-53-2	54117-54-3	55302-96-0,
	5-N-(.beta.-Hydroxyethyl)amino-2-methyl phenol			56413-28-6	
	56413-29-7	56413-30-0	56413-31-1	56413-32-2	56413-33-3

56413-34-4	56413-35-5	56413-36-6	56413-37-7	56413-38-8
56413-39-9	56523-96-7	56523-97-8	56523-98-9	56524-08-4
56524-09-5	56524-10-8	56524-11-9	57693-25-1	57693-26-2
57877-71-1	61578-24-3	61578-25-4	61578-26-5	61937-91-5
61938-02-1	61938-03-2	72828-90-1	74386-17-7	74567-64-9
79377-85-8	79377-91-6	79377-92-7	79377-98-3	79395-66-7
79395-69-0	80498-15-3, Laccase	81769-84-8		
81769-89-3	81769-90-6	81790-04-7		
83968-90-5	83968-91-6	83968-92-7	84113-63-3	85187-85-5
94275-71-5	94276-90-1	94885-67-3	94885-68-4	94885-69-5
94885-70-8	94885-71-9	94885-72-0	94885-73-1	94885-74-2
94885-75-3	94885-76-4	94885-77-5	94885-78-6	94885-79-7
96597-44-3	96597-45-4	96597-49-8	96622-84-3	97628-71-2
97628-72-3	97628-73-4	104038-58-6	104488-58-6	104488-59-7
104511-49-1	107278-33-1	107278-34-2	107385-48-8	107464-77-7
107464-79-9	107464-81-3	108403-61-8	108403-62-9	108403-63-0
108403-64-1	108403-65-2	108403-66-3	112988-80-4	116915-58-3
117881-66-0	117881-93-3	118727-49-4	118727-54-1	119482-85-8
119570-73-9	119570-76-2	122235-19-2	122235-20-5	124360-14-1
124360-15-2	146091-29-4	156470-28-9	181423-83-6	181423-86-9
181423-88-1	181423-91-6	181423-94-9	181423-97-2	181424-03-3
181424-11-3	181424-16-8	181424-17-9	181424-22-6	181424-28-2
181424-29-3	181424-34-0	181424-39-5	181424-43-1	181424-48-6
181424-52-2	181424-56-6	181424-60-2		

(hair dyeing compns. contg. monoheteroyldiarylmethane direct dye or its leuco precursor)

L49 ANSWER 3 OF 4 HCA COPYRIGHT 2006 ACS on STN

140:289230 Fabric care compositions containing UV protectant, dye sequestrant, fabric softener etc. Adair, Matha J.; Finn, Leslie S.; Petrin, Michael J.; Rodriguez, Cheryl H.; Shanks, Philip C.; Van Buskirk, Gregory; De Leo, Malcolm A.; Selbach, Hanneliese S.; Ochromogo, Maria G. (USA). U.S. Pat. Appl. Publ. US 2004063597 A1 20040401, 30 pp. (English). CODEN: USXXCO. APPLICATION: US 2002-259179 20020927.

AB A non-liq., liq., liq.-gel or gelled fabric care compn. comprises one or more fabric care enzymes effective for aiding in preventing pilling fuzzing, staining and other deterioration of fabric fibers during the wash process. The fabric care compn. also comprises one or more UV protectants for brightening and preventing light caused photo fading or other damage to fabrics. The fabric care compn. comprises one or more surface active dispersing, emulsifying and/or solubilizing agent principally comprised of surfactants, co-surfactants, hydrotropes and solvents selected to solubilize or stabilize the compn. The fabric care compn. also comprises one or more dye-transfer inhibitors, anti-redeposition agents or dye sequestrants to prevent re-deposition of dyes which have become transient from other fabrics. The fabric care compn. comprises one

or more dye, pigment and fabric color fixative or finish protectant to lock-in dyes and pigments to prevent their loss in quantity or quality during soaking or washing. The fabric care compn. optionally comprises one or more textile lubricant and/or textile softening agent to coat the textiles and reduce inter-fiber and fiber surface friction. The fabric care compn. also comprises one or more hardness and metal ion sequestrants and crystal growth inhibitors to bind free ions to prevent formation of insol. ppt. compds. The fabric care compn. also comprises one or more chlorine and/or active oxygen scavengers or neutralizers which act to neutralize oxidizing agents, i.e., those species with oxidn. potential. The fabric care compn. optionally comprises one or more from the following: handling, storage, processing agents to modify elastic and viscous phase properties, anti-foaming or frothing agents, anti-microbial, anti-bacterial or anti-fungal agents, pH buffer, adjustment and/or modification, as needed, aesthetic dyes and/or fragrances.

IT **9005-25-8, Starch, uses**

(cationic, dye-transfer inhibitor; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)

RN 9005-25-8 HCA

CN Starch (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **9003-99-0, Peroxidase**

(dye-transfer inhibitor; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)

RN 9003-99-0 HCA

CN Peroxidase (9CI) (CA INDEX NAME)

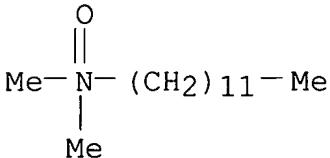
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **1643-20-5, Lauryl amine oxide**

(nonionic surfactant; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)

RN 1643-20-5 HCA

CN 1-Dodecanamine, N,N-dimethyl-, N-oxide (9CI) (CA INDEX NAME)



IC ICM C12S009-00

INCL 510276000; 510392000

CC 46-5 (Surface Active Agents and Detergents)

IT Quaternary ammonium compounds, uses

((2-hydroxypropyl)methylditallow alkyl, **chlorides**, cationic fabric softener; fabric care compns. contg. UV

protectant, dye sequestrant, fabric softener etc)

IT **Oligosaccharides**, uses
(deriv., optionally alkoxylated, nonionic surfactant; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)

IT Quaternary ammonium compounds, uses
(dimethylditallow alkyl, **chlorides**, cationic fabric softener; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)

IT 107-64-2, Distearyl dimethylammonium **chloride** 7212-69-3, Dioleyl dimethylammonium **chloride** 92888-37-4, Methyl bis(oleylamidoethyl)2-hydroxyethyl ammonium methyl sulfate 676162-67-7, Dimyristyl diethyl ammonium **bromide**
(cationic fabric softener; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)

IT **9005-25-8, Starch**, uses
(cationic, dye-transfer inhibitor; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)

IT 9000-30-0, Guar gum 9002-89-5, Polyvinyl alcohol 9002-98-6
9003-39-8D, Polyvinyl pyrrolidone, optionally deriv.
9003-99-0, Peroxidase 9004-32-4, Carboxymethyl **cellulose** 9004-42-6, Carboxyethyl **cellulose**
9004-67-5, Methyl **cellulose** 9005-32-7, Alginic acid
9035-73-8, Oxidase 9045-81-2, Polyvinylpyridine-N-oxide
12619-70-4, Cyclodextrins 25232-42-2, Polyvinyl imidazole
25608-40-6, Polyaspartic acid 26062-48-6, Polyhistidine
26063-13-8, Polyaspartic acid 26854-81-9, Polyhistidine
106392-12-5, Ethylene oxide-propylene oxide block copolymer
182482-80-0, Polyvinyl oxazolidone
(dye-transfer inhibitor; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)

IT 108-95-2D, Phenol, deriv., alkoxylated **1643-20-5**, Lauryl amine oxide 13840-40-9, Phosphine oxide 26912-60-7
(nonionic surfactant; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)

IT 71-00-1, Histidine, uses 74-79-3, Arginine, uses 77-86-1, Tris(hydroxymethyl)aminomethane 100-97-0, uses 111-42-2, Diethanolamine, uses 141-43-5, Monoethanolamine, uses 7772-98-7, Sodium thiosulfate 9003-05-8 12125-02-9, Ammonium **chloride**, uses 24937-47-1, Polyarginine 25013-16-5, Butylated hydroxyanisole 25104-18-1, Polylysine 25212-18-4, Polyarginine 26336-38-9, Vinylamine homopolymer 38000-06-5, Polylysine
(scavenger; fabric care compns. contg. UV protectant, dye sequestrant, fabric softener etc)

vivo. Cevc, Gregor (Idea Innovative Dermale Applikationen G.m.b.H., Germany). PCT Int. Appl. WO 2000038653 A1 20000706, 73 pp.

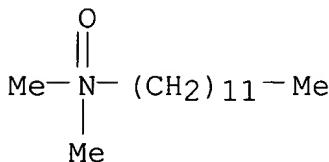
DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, LZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1998-EP8421 19981223.

AB A formulation comprises mol. arrangements capable of penetrating pores in a barrier, owing to penetrant adaptability, despite the fact that the av. diam. of the pores is smaller than the av. penetrant diam., provided that the penetrants can transport agents or cause permeation through the pores after penetrants have entered pores. The formulation comprises at least 1 consistency builder in an amt. that increases the formulation to maximally 5 Nm/s so that spreading over is enabled. The formulation also contains 1 antioxidant in an amt. that reduces the increase of oxidn. index to <100% per 6 mo and/or at least 1 microbicide in an amt. that reduces the bacterial count of 1 million germs added/g of total mass of the formulation to <100 in the case of aerobic bacteria, to <10 in the case of entero-bacteria, and to <1 in the case of Pseudomonas aeruginosa or Staphilococcus aureus, after a period of 4 days. Thus, a compn. contained soybean phosphatidylcholine 347, Tween-80 623, sodium dodecyl sulfate 30, benzyl alc. 50, clobetasol 17-propionate 25 and pH 6.5 50 mM phosphate buffer 9000 mg.

IT **1643-20-5**, Dodecyldimethylamine oxide **9004-34-6D**, **Cellulose**, derivs., biological studies (penetrating formulation for topical non-invasive application in vivo)

RN 1643-20-5 HCA

CN 1-Dodecanamine, N,N-dimethyl-, N-oxide (9CI) (CA INDEX NAME)



RN 9004-34-6 HCA

CN Cellulose (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM A61K009-127

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

IT Quaternary ammonium compounds, biological studies

(alkylbenzyldimethyl, **bromides**; penetrating formulation for topical non-invasive application in vivo)

IT Quaternary ammonium compounds, biological studies
(alkylbenzyldimethyl, **chlorides**; penetrating formulation for topical non-invasive application in vivo)

IT Quaternary ammonium compounds, biological studies
(**bromides**; penetrating formulation for topical non-invasive application in vivo)

IT Quaternary ammonium compounds, biological studies
(**chlorides**; penetrating formulation for topical non-invasive application in vivo)

IT 50-06-6, Phenobarbital, biological studies 50-33-9,
Phenylbutazone, biological studies 50-78-2, Acetylsalicylic acid
50-81-7, Ascorbic Acid, biological studies 50-99-7, Glucose,
biological studies 52-67-5, Penicillamine 53-86-1, Indomethacin
54-05-7, Chloroquine 54-64-8, Thiomersal 55-56-1, Chlorhexidine
55-68-5, Phenylmercuric nitrate 56-81-5, Glycerol, biological
studies 57-15-8, Chlorbutanol 59-02-9, .alpha.-Tocopherol
59-05-2, Methotrexate 59-50-7, 4-Chloro-m-cresol 60-00-4, EDTA,
biological studies 61-68-7, Mefenamic acid 62-38-4,
Phenylmercuric acetate 62-56-6, Thiourea, biological studies
64-17-5, Ethyl alcohol, biological studies 65-85-0, Benzoic acid,
biological studies 67-63-0, Isopropyl alcohol, biological studies
67-68-5D, DMSO, alkyl derivs. 69-72-7, Salicylic Acid, biological
studies 69-93-2, Uric acid, biological studies 70-18-8,
Glutathione, biological studies 70-30-4, Hexachlorophene
81-24-3D, salts 81-25-4D, salts 83-44-3D, salts 83-89-6,
Quinacrine 86-74-8, Carbazole 89-65-6 90-05-1, Guaiacol
90-34-6, Primaquine 94-13-3, Propylparaben 94-18-8,
Benzylparaben 94-26-8, Butylparaben 97-23-4, Dichlorophene
99-50-3, Protocatechuic Acid 99-76-3, Methylparaben 100-51-6,
Benzyl alcohol, biological studies 102-98-7, Phenylmercuric borate
103-90-2, Acetaminophen 107-15-3D, Ethylenediamine, derivs.
107-21-1, Ethylene glycol, biological studies 110-27-0, Isopropyl
myristate 110-44-1, Sorbic acid 112-53-8, 1-Dodecanol
112-80-1, Oleic acid, biological studies 118-42-3,
Hydroxychloroquine 119-13-1, .delta.-Tocopherol 120-47-8,
Ethylparaben 121-33-5, Vanillin 121-79-9, Propyl Gallate
122-39-4, Diphenylamine, biological studies 123-03-5,
Cetylpyridinium **chloride** 123-31-9, Hydroquinone,
biological studies 128-37-0, BHT, biological studies 129-20-4,
Oxyphenbutazone 137-66-6 138-14-7, Desferal 141-78-6, EtOAc,
biological studies 143-19-1, Sodium oleate 143-28-2, Oleyl
alcohol 148-03-8, .beta.-Tocopherol 149-91-7, Gallic Acid,
biological studies 151-41-7, Lauryl sulfate 302-95-4, Sodium
deoxycholate 327-97-9, Chlorogenic acid 331-39-5, Caffeic acid
360-65-6D, salts 446-86-6, Azathioprine 475-31-0D, salts
476-66-4, Ellagic Acid 484-78-6, 3-Hydroxykynurenine 490-79-9,

Gentisic acid 500-38-9, Nordihydroguaiaretic Acid 516-50-7D, salts 525-66-6, Propranolol 530-57-4, Syringic Acid 530-59-6, Sinapic acid 530-78-9, Flufenamic acid 534-61-2, IsoChlorogenic acid 538-71-6, Phenododecinium **bromide** 548-93-6, 3-Hydroxyanthranilic acid 616-91-1, N-Acetylcysteine 621-82-9, Cinnamic acid, biological studies 629-25-4, Sodium laurate 635-65-4, Bilirubin, biological studies 822-17-3, Sodium linoleate 1118-68-9D, Dimethylglycine, alkyl derivs. 1135-24-6, Ferulic acid 1319-77-3, Cresol **1643-20-5**, Dodecyldimethylamine oxide 1948-33-0, tert-Butylhydroquinone 1951-25-3, Amiodarone 2002-22-4D, derivs. 2495-84-3 3650-09-7, Carnosic acid 4353-06-4 5432-30-4 5677-55-4, Ubiquinol-10 5957-80-2, Carnosol 7235-40-7, .beta.-Carotene 7347-25-3, Sodium taurate 7616-22-0, .gamma.-Tocopherol 7631-90-5, Sodium bisulphite 7681-57-4, Sodium metabisulfite 7747-53-7 9000-07-1, Carrageenan 9000-30-0, Guar-gum 9000-65-1, Tragacanth 9000-69-5, Pectin 9001-05-2, Catalase 9002-88-4, Polyethylene 9002-89-5, Polyvinyl alcohol 9002-92-0, Polyethylene glycol dodecyl ether 9002-96-4 9003-39-8, Polyvinylpyrrolidone 9004-32-4, Carboxymethyl **cellulose** sodium salt **9004-34-6D**, **Cellulose**, derivs., biological studies 9004-61-9, Hyaluronic Acid 9004-62-0, Hydroxyethyl **cellulose** 9004-64-2, Hydroxypropyl **cellulose** 9004-65-3, Hydroxypropylmethyl **cellulose** 9004-67-5, Methyl **cellulose** 9004-98-2, Polyethylene glycol oleyl ether 9004-99-3, Myrj 45 9005-32-7, Alginic acid 9005-64-5, Tween 20 9005-65-6, Tween 80 9012-36-6, Agarose 9012-76-4, Chitosan 9013-66-5, Glutathione **peroxidase** 9036-19-5, Polyethylene glycol octylphenyl ether 9043-30-5, Polyethylene glycol isotridecyl ether 9054-89-1, Superoxide dismutase 9086-85-5, Poly(hydroxypropyl) methacrylate 10540-29-1, Tamoxifen 11138-66-2, Xanthan 12041-76-8, Dichlorobenzylalcohol 15307-86-5, Diclofenac 15687-27-1, Ibuprofen 16409-34-0, Sodium glycodeoxycholate 16690-40-7 18175-45-6, Sodium elaidate 18472-51-0, Chlorhexidine gluconate 18683-91-5, Ambroxol 19767-45-4, Mesna 20283-92-5, Rosmarinic acid 20902-45-8, Penicillamine disulfide 21829-25-4, Nifedipine 22071-15-4, Ketoprofen 22204-53-1, Naproxen 22494-42-4, Diflunisal 23288-49-5, Probucol 25013-16-5, BHA 25014-41-9, Polyacrylonitrile 25249-16-5 25322-68-3, PEG 25429-38-3, Coumaric acid 25655-41-8, Povidone-iodine 26570-48-9, Polyethylene glycol-diacrylate 26746-38-3, Di-tert-butylphenol 27306-76-9, Polyethylene glycol cetyl stearyl ether 27306-79-2, Polyethylene glycol myristyl ether 29122-68-7, Atenolol 29349-22-2, Chlorobenzyl alcohol 33425-76-2 36322-90-4, Piroxicam 36413-60-2, Quinic Acid 37640-71-4, Aprindine 53188-07-1, Trolox 53584-19-3 55985-32-5, Nicardipine 59227-89-3, Azone 63675-72-9, Nisoldipine 66085-59-4, Nimodipine

68047-06-3, Hydroxytamoxifen 68555-46-4 75530-68-6, Nilvadipine
77400-65-8, Asocainol 85261-20-7, Decanoyl N-methylglucamide
87246-72-8 88306-53-0 90522-12-6 91729-95-2, Rosmaridiphenol
99716-88-8, Methallylsulfonic acid homopolymer 106392-12-5,
Poloxamer 110101-67-2, U74006F 118457-14-0, Nebivolol
121869-32-7 148081-72-5, 1-O-Hexyl-2,3,5-trimethylhydroquinone
(penetrating formulation for topical non-invasive application in
vivo)